State of California
Department of Pesticide Regulation
Pesticide Registration Branch
PR-REG-003 (Est. 7/91) (Rev. 7/11)

APPLICATION
FOR SECTION 18 EMERGENCY EXEMPTION

The following information is required for an emergency exemption request based on the revised United States Environmental Protection Agency (USEPA) Code of Federal Regulations, Title 40, Part 166 concerning Section 18 requests. Requests which are incomplete will be denied by the USEPA without review. In order to comply with these requirements, the information listed below must be provided. **Use additional pages if necessary.** Please note that the more complete the questionnaire, the better your chances are of obtaining the exemption.

☐ **Check box if this is a reissuance request.** Year 2018 ID # EE-282673

TYPE OF EXEMPTION BEING REQUESTED (check one)

☒ SPECIFIC

☐ QUARANTINE

☐ PUBLIC HEALTH

DESCRIPTION OF PESTICIDE REQUESTED

Common Chemical Name (Active Ingredient): Sulfoxaflor

Trade Name/Brand Name: Transform WG

U.S. EPA Reg. No.: 62719-625

Formulation: Suspension Concentrate (SC) % Active Ingredient: 50%

Manufacturer: Dow AgroSciences, LLC

APPLICANT, STATE CONTACT PERSON, AND QUALIFIED EXPERT(S)

APPLICANT

Name:	Margaret Reiff
Title:	Environmental Program Manager I (Supervisory)
Organization:	CA Dept. of Pesticide Regulation (DPR)
Address:	1001 I Street, P.O. Box 4015
	Sacramento, CA 95812
Telephone:	916-445-5977
E-Mail:	Margaret.Reiff@cdpr.ca.gov
Signature:	Margaret Reiff
Date:	August 9, 2018

State Contact Person:	Francie Bishop
Telephone:	916-324-4251
E-Mail:	Francie.Bishop@cdpr.ca.gov
Fax:	916-324-5872

QUALIFIED EXPERT(S)

Name:	Jean-Mari Peltier (**Priority Contact)**
Title:	President
Organization:	Environmental Solutions Group, LLC
Address:	1415 L Street, Suite 460 Sacramento, CA 95814
Telephone:	916-443-2793, Ext. 102
E-Mail:	jmpeltier@esgllc.net

Name: Dr. Peter Goodell

Title: Cooperative Extension Advisor

Organization: UC Statewide IPM Program

Address: 9240 South Riverbend Ave.
Parlier, CA 93648

Telephone: 559-646-6515

E-Mail: pbgoodell@ucanr.edu

Name: Steve Orloff

Title: County Director / Farm Advisor

Organization: Cooperative Extension Siskiyou County

Address: 1655 South Main Street
Yreka, CA 96097

Telephone: 530-842-2711

E-Mail: sboroff@ucanr.edu

DESCRIPTION OF PROPOSED USE

Sites to be Treated (i.e. crops, structures, etc.): Sorghum (Sorghum grain and silage and Sudan hay, grass, and seed)

Statewide or County Specific (list counties): Fresno, Imperial, Kern, Kings, Madera, Merced, Stanislaus, and Tulare Counties

Method of Application: Foliar applications made by ground or air equipment

Rate of Application (in terms of a.i. and product):
Apply 0.75- 1.5 ounces of product (0.023-0.047 lbs. a.i.) per acre per application

Control of sugarcane aphid may be contingent on thorough coverage to the crop. Use sufficient water to get full coverage of the canopy.

Frequency/Timing of Application:
Applications may not begin before 7 pm and must be completed by 3 am.

Treat in accordance with local economic thresholds. Consult your Dow AgroSciences representative, cooperative extension service, certified crop advisor, or state agricultural experiment station for any additional local use recommendations for your area.

Use higher rate in the rate range for heavy pest populations.

Allow a minimum of 14 days between applications

Maximum Number of Applications: Two Applications:

Total Acreage Planted and to be Treated: 125,000 Planted
75,000 Treated

Total Amount of Pesticide to be used (in terms of product and a.i.):
14,062.5 pounds of Transform WG
7,050 pounds of Sulfoxaflor

Use Season:

Date first application needed: Sept 30, 2018

Date last application needed: October 31, 2019

Restricted Entry Interval (REI): 24 hours

Preharvest Interval (PHI): Do not apply within 14 days of grain or straw harvest or within 7 days of grazing, or forage, fodder, or hay harvest.

Earliest Harvest Date: October 1

Additional Restrictions, User Precautions and Requirements, Qualifications of Applicators, etc.:

- Applications may not begin before 7 pm and must be completed by 3 am.
- A copy of the Section 18 Use Instructions (label) must be in the possession of the user at the time of application in California (**Attachment A**).
- Follow all applicable restrictions, directions, and precautions on the U.S. EPA registered label for Transform WG Insecticide (**Attachment B**).
- The California Department of Pesticide Regulation (DPR) must be immediately informed of any adverse effects that may result from the use of Transform WG Insecticide in Cotton.
- Use of this product may pose a hazard to endangered or threatened species. Before applying this product, applicators must obtain information regarding the proximity of endangered species habitats and follow any applicable use limitations. Contact your County Agricultural Commissioner or refer to the Department of Pesticide Regulation's PRESCRIBE Internet Database: http://www.cdpr.ca.gov/docs/endspec/prescint.htm for details.

EXPECTED RESIDUE LEVELS IN FOOD

Applications made in accordance with the terms of the emergency exemption issued under section 18 of FIFRA are not expected to result in residues of sulfoxaflor, including its metabolites and degradates, in or on sorghum commodities in excess of the following USEPA established time-limited tolerances listed in the 40 CFR at 180.668(b):

Sorghum, Forage:	0.4 ppm
Sorghum, Grain:	0.3 ppm
Sorghum, Stover:	0.9 ppm

Please note: DPR's Chemistry group evaluated magnitude of residue data for sulfoxaflor in/on sorghum, and concluded that the submitted residue data resulted in maximum total residues for sorghum forage at 0.43 ppm and sorghum stover at 0.92 ppm. These values for the maximum total residues exceed the time-limited tolerances that have been established in 40 CFR 180.668 (b) to support this emergency use. Please see **Attachment C** for DPR's Chemistry evaluation report

ALTERNATIVE METHODS OF CONTROL

Registered Alternative Pesticides:

The following information was provided by Jean-Mari Peltier, Environmental Solutions Group:

Please note: this information is extracted from the Section 18 application from the state of Texas, but information has been corroborated with California Extension Specialists.
Of the registered alternative pesticides, only Dimethoate 4 EC (dimethoate, 19713-231) has provided adequate control. Dimethoate is an organophosphate which is labeled for use on sorghum at 1 pint per acre. Dimethoate, which is highly toxic to bees, has a use restriction that does not allow its use during pollen shed in sorghum. Insects have historically shown resistance to organophosphates. Three other pesticides registered for use on sorghum did not provide adequate control of the aphid. Those pesticides are:

- Karate® with Zeon™ Technology (lambda cyhalothrin 22.8%, 100-1097)
- Lorsban® Advanced (chlorpyrifos 40.2%, 62719-591)
- Asana® XL (esfenvalerate 8.4%, 352-515)

Of the above mentioned insecticides, Karate® and Asana® are pyrethroids and Lorsban® is an organophosphate. Both pyrethroids and organophosphates have shown resistance potential. In field tests conducted in 2013 by Texas A&M AgriLife professionals, Karate® and Asana® both provided some initial population reduction when used at labeled rates. However, in some instances, population spikes were observed soon after treatments. Chlorpyrifos did not provide satisfactory control at labeled rates. Sivanto® was approved for use and is available to producers for SCA control. While Sivanto® remains available, Transform™ is still needed to prevent resistance build up, which is common in aphids. Transform™ is also needed due to its 7-day preharvest interval, whereas Sivanto® has a 14-day restriction. The 7-day window is needed to treat late season aphid infestations prior to harvest. Without the late season control prior to harvest, aphid populations can create large amounts of honeydew which creates major problems with the harvest equipment and causing lodging of the sorghum, preventing harvest all together. In sorghum used for silage, honeydew makes the product unacceptable to feed to lactating cows, rendering the crop useless.

Alternative control practices (Jean-Mari Peltier, Environmental Solutions Group):
Best management practices include removal of volunteer sorghum plants, the use of tolerant sorghum hybrids, high quality seed treatments, good grass weed management, scouting and use of insecticides if needed. Per information provided by University of California Cooperative Extension (UCCE) predators may be beneficial, but are not a stand-alone control. While there are parasitoids which are effective on native aphids, they are “rarely seen” on sugarcane aphid. There are studies underway to look for resistant grain sorghum in the south. The resistance/tolerance on CA forage and seed sorghum is unknown.
The following information is adapted for the Sorghum Checkoff program:

- Control Johnson grass and other sorghum around the field
- Plant early to avoid infestations
- Use seed treatments, especially on late plantings
- Scout early and often
- Treat as soon as threshold is reached (According to Jean-Mari Peltier, there is no threshold set in California)
- Use the recommended insecticides, rate and volume of water
- Avoid use of organophosphates and pyrethroids that may harm beneficials and may cause aphid numbers to increase rapidly

Registered Alternatives (Information pulled directly from the 2016 Texas Section 18 Petition):

Chemical (active ingredient)	**Application Type** (soil, seed, foliar, etc.)	**Number of Applications/ growing season**	**Comments- reason insecticide is unsuitable**
Imidacloprid	Seed	1	The seed treatment application is not expected to provide season-long control. Further tests will be evaluated this season.
Clothianidin	Seed	1	The seed treatment application is not expected to provide season-long control. Further tests will be evaluated this season.
Thiamethoxam	Seed	1	The seed treatment application is not expected to provide season-long control. Further tests will be evaluated this season.
Dimethoate	Foliar	3	Provided inconsistent control. Has restriction of no applications during pollen shed due to the toxicity to bees. 28 day PHI
Chlorpyrifos	Foliar	3	Results of less than satisfactory control. PHI prevents late season application. (30 days PHI of 1 pint/acre, 60 days PHI of 1+ pints/acre)
Lambda Cyhalothrin	Foliar	3 (can only apply twice after crop has emerged and once after is in soft dough stage.)	Good initial control, but flared populations in test. 30 day PHI.
Esfenvalerate	Foliar	1	Good initial control, but residual was short, and actually flared populations. 21 day PHI.
Turbufos	Soil - Band @ planting	1 - 5cm wide band	Will not provide season long control.

EFFICACY OF USE PROPOSED UNDER SECTION 18

Sulfoxaflor is a part of the sulfoximines class of chemicals and is highly specific for sap-feeding insect pests. Sulfoxaflor is registered federally on several crops including canola (rapeseed) (subgroup 20A), root and tuber vegetables (crop groups 1A and 1B), potatoes (crop groups 1C and 1D), succulent, triticale, and wheat. Sulfoxaflor has been proven to be efficacious on sugarcane aphids. DPR entomologists support the use of Sulfoxaflor on sorghum based on data evaluated from use of the product on other similar crops.

DPR's review of this efficacy data is submitted in **Attachment D**.

COORDINATION WITH OTHER AFFECTED FEDERAL, STATE, and LOCAL AGENCIES

The appropriate state agencies are also being notified of this specific exemption request through routine weekly notices which the Department of Pesticide Regulation distributes. Comments received after the submission of this request will be forwarded to U.S. EPA.

NOTIFICATION OF REGISTRANT

The registrant of Transform WG, Dow AgroSciences, has provided a letter of support for the proposed emergency use (**Attachment E**).

REPEAT USES
(Interim Use Report)

Not applicable. This is a first time new use in California.

PROGRESS TOWARDS REGISTRATION

(Information from registrant concerning the current status)
(Not required for request of a Quarantine Exemption)
(Check All That Apply)

[ ] NO APPLICATION FOR REGISTRATION OF THE USE IS UNDER REVIEW BY USEPA.

[x] USEPA IS REVIEWING AN APPLICATION FOR REGISTRATION OF THIS USE (TYPE OF REGISTRATION: Section 3).

[ ] AN IR-4 PETITION FOR TOLERANCE IS BEING DEVELOPED: PETITION

[ ] A PETITION FOR TOLERANCE HAS BEEN SUBMITTED TO USEPA BY THE MANUFACTURER. PETITION # _____.

[ ] A PETITION FOR TOLERANCE OR AN APPLICATION FOR REGISTRATION HAS BEEN DENIED (INDICATE THE CIRCUMSTANCES _____).

IF THIS USE PATTERN WILL BE NEEDED FOR MORE THAN ONE SEASON, A PERMANENT TOLERANCE SHOULD BE PURSUED IMMEDIATELY. CONTACT THE MANUFACTURER OR IR-4 TO INITIATE THE ESTABLISHMENT OF A PERMANENT TOLERANCE

NAME OF PEST

Scientific Name: *Melanaphis sacchari*
Common Name: sugarcane aphid

Sugarcane aphid (SCA), also known as the white sugarcane aphid, has become one of the most important insect pests of sorghum in the southern US and Mexico. SCA may be wingless or winged. They are pale yellow to white in color with dark cornicles (tailpipes) located at on their rear-ends. Winged aphids are darker yellow in color. (Jean-Mari Peltier, Environmental Solutions Group)

Sugarcane aphids can reproduce without mating. Most SCAs are female and give birth to 1-3 live, pregnant offspring daily. Nymphs pass through 4 (four) stages and can reach reproductive adult stage in 5 days, resulting in exponential growth rates under ideal conditions. The life span of the female is around 28 days with a range of 10-37 days. (Jean-Mari Peltier, Environmental Solutions Group)

Winged adults generally develop as a result of stress conditions. As population density increases and food quality declines, a proportion will develop wings as adults, which enables them to fly to other nearby fields or to be carried by winds, potentially across long distances. Mouthparts are piercing/sucking, which enables them to feed on the sap of the plant, ultimately impacting plant growth. Generally, they reside on the underside of the sorghum leaves before they move to the other areas of the plant. As is typical with aphids, they leave behind “honeydew”, a sticky liquid excrement. The honeydew serves as a food source for saphrophytic fungi, such as sooty mold, which turn the plant leaves blank in color, thus reducing the plants photosynthetic capability. In addition, the SCA honeydew may reduce harvest efficiency by gumming up harvest equipment. (Sugarcane Aphid Invades California Sorghum, Alfalfa & Forage News, September 1, 2016.)

Further damage is caused when feeding by the aphid causes the plant to dry out, reducing moisture levels below what is needed for fermentation as silage. Stressed plants also have a reduced ability to fill a grain head, according to Western Farm Press, September 8, 2016.

Identification:

- **Pale yellow, gray or tan**
- **Black cornicles**
- **Black tips of antennae and feet**
- **Underside of leaves**
- **Most commonly by midrib**
- **Lots of honeydew, sooty mold**

DISCUSSION OF EVENTS OR CIRCUMSTANCES WHICH BROUGHT ABOUT THE EMERGENCY CONDITION

Crop Background:
Sorghum is an ancient African cereal grain, domesticated some 8000 years ago in the region of Southern Sudan and Ethiopia. It is the fifth most important cereal grain after rice, wheat, maize and barley and is a dietary staple for more than 500 million of the most food-insecure people in the world. The whole sorghum plant is used, with the grain being a major food and feed staple, the leaves and stems for livestock, and the sweet juice for syrup and molasses production. (Jean-Mari Peltier, Environmental Solutions Group)

Sorghum is not new to the United States. It more than likely traveled to the US via the slave trade; however, the first recorded evidence of sorghum is in 1757, when Benjamin Franklin wrote about broomcorn, a specialty sorghum, to a friend. It is not new to California either, having been introduced to the state as an animal feed in the late 1800s. Sorghum is a drought-tolerant, relatively low input crop with wide adaptability, which can be grown on 85% of the arable land in the world. It is also gluten-free and can therefore benefit those with celiac sprue and other gastrointestinal disorders. UC researchers are rediscovering the importance of sorghum as a worthwhile rotational crop and forage that can help California meet its future water needs, specialty food markets, and potentially as an important renewable fuel crop. (Jean-Mari Peltier, Environmental Solutions Group)

Sorghum [Sorghum bicolor *(L.) Moench*] is a member of the grass family, which includes grain sorghum, forage sorghum, sweet sorgos, broomcorn and Sudangrass, and it is also closely related
to Johnsongrass [*S. halepense*], a major weed pest. Grain sorghum is commonly referred to in California as milo, corn, and "gyp" corn. The history of grain sorghum in California dates back to
1874, when a small consignment of white and brown Durra was brought from Egypt. Planted in the interior valleys, these introductions demonstrated their ability to withstand the hot, dry summers and soon became established as a crop. The vast majority of California's grain sorghum is grown under irrigation. According to USDA National Agricultural Statistics Service (NASS) it was planted on 7.1 million acres in the United States in 2014, and this is predominately dryland farming. (Jean-Mari Peltier, Environmental Solutions Group)

Sorghum is planted from late May through early July. Sudan Grass is planted a little earlier, closer
to March/April. With all plantings being susceptible to insect infestation from mid-late summer, all the way through early fall when it is time for harvest. Infestations often move from south to north, beginning in the southern desert areas, then the southern San Joaquin Valley, northern San Joaquin Valley and into the Sacramento Valley. Depending on the variety and crop type, harvest can begin as early as September, for example, when the sorghum grain is custom harvested, and continues on through October. (Jean-Mari Peltier, Environmental Solutions Group)

Emergency Conditions:
Sugarcane aphid (SCA) has become a severe pest of North American sorghum production over the past few years. They were first documented in the US in 1977 but did not become a pest of sorghum until 2013, after which they spread rapidly across sorghum-producing areas of the US and Mexico. By 2015, SCA was present in Puerto Rico and in every sorghum-producing state in the South from Texas to Florida and spreading north from Kansas to North Carolina. In 2016, the sugarcane aphid was found in the San Joaquin and Imperial Valleys of California. (Alfalfa and Forage Field Days.)

SCA populations can grow exponentially due to their live-birth reproductive behavior. They feed on the sap of the leaf and can cause severe yield losses, with instances of 100% loss reported. As presented at Alfalfa and Forage Days, the SCA are all females, born pregnant, and field populations can explode from 50 to 500 aphids per leaf in two weeks. Winged forms can disperse to infest nearby fields. (Jean-Mari Peltier, Environmental Solutions Group)

SIGNIFICANT ECONOMIC LOSS (SEL)
(Criteria for determining SEL)

The SCA is a new pest to California. Per interviews [performed by Environmental Solutions Group] with extension professionals, "We do not have economic data on this pest." In a September article from Western Farm Press, one California grower stated that, "plant yields in sorghum that can be about 25 tons per acre, in the absence of the pest, can drop to about 18 tons per acre. Moreover, the quality of the forage is significantly impacted, making it unsuitable for lactating cows." (Jean-Mari Peltier, Environmental Solutions Group)

The SCA is also a new pest to Arizona (AZ). The following information is from Arizona's Section 18 application. Before SCA, sorghum was a low input crop requiring very little maintenance. The introduction of this pest has changed all that. Ken Narrimore, PCA, who likely works with the most sorghum in the state, provided the following information. Growers in AZ look to produce about 25 tons of silage/acre. The price is around $30/ton. The grow budget for sorghum in AZ is around $600 – 650/acre, this is without any overhead costs which are quite variable but will run $20 to $50/acre. So you can look at the potential profit of anywhere from $50 – 130/acre with overhead costs. Conventionally used organophosphates are providing at the max, 5 days control.
Sivanto® is 10 -14 days, which is not considered to be good control. You could potentially make 3 applications of Sivanto®, however, as part of a resistance management program this is not recommended, and the fact that Sivanto® is quite expensive (applications costs with Sivanto® run about $35/acre). (Jean-Mari Peltier, Environmental Solutions Group)

Based on the information provided by the State of Arizona, along with surveys, communications with University of California Farm Advisors and dairy industry contacts, we project that sorghum producers could face a loss of at least 25% of their crop due to SCA. (Jean-Mari Peltier, Environmental Solutions Group)

Crop production of the four types of Sorghum produced in California 2013 through 2015 as supplied by the National Agricultural Statistics Service (NASS). Note that actual production data for 2016 was not available. A loss of at least 25% was projected per conversations with industry and university experts (Jean-Mari Peltier, Environmental Solutions Group). This translates to a projected loss of gross revenues of over $24million, the largest portion of which is loss of Sudan grass, a valuable California export crop (Jean-Mari Peltier, Environmental Solutions Group). In addition, because the University of California documents tight margins in silage sorghum, these crop losses will put growers in the red, and without feed for dairy cattle (Jean-Mari Peltier). See the following table (Data provided by Environmental Solutions Group in September 2017.):

Crop Type	2013	2014	2015	Average 2013-2015	Projected 2017 (25% loss)
Sorghum, Grain					
Acreage	5,352	10,760	11,841	9,317.67	9,317.67
Tons (per acre)	5.48	6.5	11.02	7.67	5.75
Price (per ton)	$60.22	$74.45	$123.25	85.97	$85.97
Total Value	$1,766,000	$5,204,000	$16,087,920	$7,685,973	$5,764,480
Projected Loss (25%)					$1,921,493
Sorghum, Silage					
Acreage	19,640	21,002	25,431	22,024.33	22,024.33
Tons (per acre)	16.56	18.13	19.37	18.02	13.52
Price (per ton)	$40.54	$51.12	$44.25	45.30	45.3
Total Value	$13,187,600	$19,465,000	$21,794,000	$18,148,867	$13,611,650
Projected Loss (25%)					$4,537,217
Hay, Sudan					
Acreage	100,634	90,174	86,939	92,582.33	92,582.33
Tons (per acre)	5.0	5.59	4.75	5.11	3.84
Price (per ton)	$157.75	$167.26	$122.34	149.12	149.12
Total Value	$79,431,000	$84,326,000	$50,494,000	$71,417,000	$53,562,750
Projected Loss (25%)					$17,854,250
Seed, Sudan Grass					
Acreage	3,752	1,681	1,090	2,174.33	2,174.33
Tons (per acre)	1.27	1.17	0.99	1.14	0.86
Price (per ton)	$999.62	$1,037.96	$936.11	991.23	991.23
Total Value	$3,316,200	$1,321,000	$1,011,000	$1,882,733	$1,412,050
Projected Loss (25%)					$470,683

FOOD QUALITY PROTECTION ACT OF1996

(Use separate attachment if necessary)

1. **Environmental Fate:** Sulfoxaflor has a relatively short environmental half-life. Residues are unlikely to be found in soil following application. The rapid soil degradation of sulfoxaflor reduces the likelihood that it will be available for transport to water or sediment via runoff. Soil dissipation/accumulation of sulfoxaflor under North American (United States and Canada) field conditions was conducted in bare plots and cropped plots at 5 sites. No sulfoxaflor soil residues greater than the analytical method LOQ (0.001 ppm) were determined below the top eighteen (18) inches of soil at any time during the study. At the California test site, no residues of sulfoxaflor were determined in any soil-pore water samples collected from all lysimeter depths (3, 6, and 9 ft) during the entire study. Sulfoxaflor residues are unlikely to be found in ground or surface water following application to crops.

2. **Residential Use:** There are currently no residential uses of sulfoxaflor.

3. **Mode of Action:** Sulfoxaflor is the first member of a new class of insecticides, the sulfoximines. Sulfoxaflor consists of two diastereomers in a ratio of approximately 50:50 with each diastereomer consisting of two enantiomers. Sulfoxaflor is systemically distributed in plants when applied. The chemical acts through both contact action and ingestion and provides both rapid knockdown (symptoms are typically observed within 1-2 hours of application) and residual control (generally provides from 7 to 21 days of residual control). The sulfoximines are a novel class of insecticides which act through a unique interaction with the nicotinic acetylcholine receptor in insects. Sulfoxaflor is a highly efficacious agonist of the nicotinic receptor. Furthermore, the structural novelty of sulfoxaflor makes it stable in the presence of monooxygenase enzymes that degrade neonicotinoids and cause virtually all known cases of resistance in the field of that class of insecticides. All of these factors contribute to the broad lack of cross-resistance to existing insecticide chemistries. Sulfoxaflor has its own unique Insect Resistance Action Committee (IRAC) classification (4C).

4. **Harvest Season:** Harvested is anticipated to begin in October of 2018.

DISCUSSION OF ANTICIPATED RISKS TO ENDANGERED OR THREATENED SPECIES, BENEFICIAL ORGANISMS, OR THE ENVIRONMENT

The toxicity of sulfoxaflor to fish and wildlife has been reviewed by DPR. The Evaluation Report Memorandum will be forwarded soon.

DPR has evaluated pesticide exposure to endangered species habitats in California, classifying risk and developing protection strategies to minimize risk as needed. DPR coordinates endangered species protection strategies with the Department of Fish and Wildlife, the Department of Food and Agriculture, the County Agricultural Commissioners, and U.S. EPA in accordance with a state plan. Mitigation measures have been put in place and can be found at http://www.cdpr.ca.gov/docs/endspec/index.htm.

The Section 18 Use Instructions will contain the following language and recommendations to avoid exposures to any listed species.

"Use of this product may pose a hazard to endangered or threatened species. Before applying this product, applicators must obtain information regarding the proximity of endangered species habitats and follow any applicable use limitations. Contact your County Agricultural Commissioner or refer to the Department of Pesticide Regulation's PRESCRIBE Internet Database: http://www.cdpr.ca.gov/docs/endspec/prescint.htm for details."

In addition, the Transform WG product label bears language to mitigate environmental hazards and outlines the precautions to follow when it is used near an aquatic environment.

ATTACHMENTS

A. Proposed DRAFT Section 18 Use Instructions.
B. U.S. Environmental Protection Agency (EPA) Section 3 Stamped-Accepted label for Transform WG Insecticide.
C. Leyva, Jesús. Chemistry *Evaluation Memorandum.* California Department of Pesticide Regulation. June 28, 2018.
D. Ghazanfari, Jamshid. *Pest and Disease Protection Evaluation Memorandum*. California Department of Pesticide Regulation. June 12, 2018.
E. Brian, Bret. Letter of Support. Dow AgroSciences LLC. May 31, 2018.
F. DPR Questions sent to Environmental Solutions Group. (September 2017).
G. Environmental Solutions Group Answers to DPR Questions. (March 2018).
H. Grower Support Letters.